Embedding projects in multiple contexts – a structuration perspective

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EMBEDDING PROJECTS IN MULTIPLE CONTEXTS – A STRUCTURATION PERSPECTIVE

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ABSTRACT

Projects are embedded in multiple systemic contexts, e.g. organizations, interorganizational networks and organizational fields, which jointly facilitate and constrain project organizing. As projects partly evolve in idiosyncratic ways as temporary systems, embedding needs to be understood as a continuous process linking projects to their environments. Using structuration theory, this paper argues that projects get embedded in multiple systemic contexts through the context-specific and context-spanning constitution of the very structural properties – tasks, times, and teams – that guide project activities. This implies that project constitution and embedding are inseparable systemic processes. This perspective on project embedding further elaborates a practice-theoretical understanding of temporary organizing.

Keywords: Project Organizing, Embedding, Temporary Systems, Structuration Theory

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INTRODUCTION

In recent years project researchers have emphasized that projects as temporary systems are embedded in permanent, yet changing systemic contexts that condition project organizing [1,2,3]. Among these contexts, organizations have been studied for a long time in terms of structures and capabilities they provide for carrying out singular and multiple projects [4,5]. In addition, longer-term customer relationships and multilateral network structures have been recognized as important project organizing contexts [6,7,8,9]. Finally, in particular in creative industries, the organizational field has been paid attention to as a 'repository of knowledge' [10,11] and a social infrastructure for project organizing [12,13].

Embeddedness in multiple contexts, however, is not a given structural condition that determines how projects are organized. The very fact that every project is partially unique [14] suggests that projects to some degree detach from their environments and develop in idiosyncratic ways as temporary social systems. At the same time, projects in professional project businesses rely on established routines, professional norms and practices that establish in various systemic contexts and that both facilitate and constrain project organizing activities [1]. This theoretical paradox of (dis-) embeddedness has not been sufficiently addressed in project research.

Structuration theory [15] may shed light on this phenomenon. By looking at the recursive interplay of action and structure, structuration theory may help understand how projects are constituted and embedded as temporary social systems in multiple contexts. Key to the understanding of this process are the structural properties projects primarily characterize – tasks, times and teams. Structuration theory will be used as a theoretical framework to clarify how these structural properties 'operate' and how they 'link' projects to

their multiple systemic contexts – organizations, networks and fields. Embedd*ing* will be conceptualized as a continuous, more or less reflexive process which project participants and stakeholders engage in when they jointly enact, transform and reproduce task, time and team features of particular projects and simultaneously relate them to multiple systemic environments. This perspective may stimulate further conceptual and empirical work on project embeddedness [11,9,3], while contributing to recent attempts toward developing a practice theory of project organizing [2].

THE CONSTITUTION OF PROJECTS AS TEMPORARY SYSTEMS: A STRUCTURATION PERSPECTIVE

Projects are often regarded as *temporary systems* reflecting their temporary and complex nature [16,17]. Interestingly, the very *constitution* of projects as temporary systems is barely understood. That is, little conceptual work has been done to interpret the very characteristics of projects in 'systemic' terms. This, however, is a crucial step for a better comprehension of projects as embedded temporary systems. In the following, a structuration perspective on projects as temporary systems is developed that helps clarify how projects are both constituted and embedded. It is consistent with the 'practice view' of project organizing associated with 'Scandinavian' project research [2].

Structuration theory (ST) is a social theory which looks at the recursive interplay of action and structure in social practice [15,18]. It has been used repeatedly as a theoretical framework for organization and network research [19,20,21,22,23]. In short, ST regards structure as sets of symbolic and normative rules ('rules of signification and legitimation'), and authoritative and allocative resources ('resources of domination'). In conjunction, they enable and constrain action as they get enacted, transformed and reproduced by actors in social practice. Actors are regarded as potentially powerful and knowledgeable agents who

apply rules and resources in interaction and, in doing so, impact on the continuous flow of events. They engage in 'reflexive monitoring', that is they continuously observe and assess the conditions and consequences of their actions for themselves and others while (re-) producing, more or less intentionally, the very structural conditions under which they act [15].

Social systems, such as temporary projects and their social contexts, are brought about by social practices, that is regularized activities in which actors apply (and reproduce) sets of symbolic and normative rules, and allocative and authoritative resources. Systems have 'systemic boundaries' insofar as structural properties can be identified that guide action in terms of *specific* (systemic) sets of rules and resources. Systems are further characterized by a certain interdependence of action which gets reproduced through the very activities actors engage in. ST emphasizes that system reproduction is possible only through individual and collective agency. In other words, it cannot be detached from the very activities motivated and powerful actors engage in more or less routinely. However, actors can only engage in systemic activities if they refer to structural properties of the system.

When applying this system perspective to project organizing, structural properties need to be identified that constitute and characterize projects as temporary social systems. From the project literature, three fundamental structural dimensions or properties of projects can be identified, labelled here in short as tasks, times, and teams [17,10].

One key constituent of projects are the *tasks* to be accomplished [17,10]. Tasks refer not only to the overall project objectives, which are linked to certain products, services or other project outcomes, but also to those sub-tasks that are allocated to project participants in the process of accomplishing project goals. The task dimension of projects reflects the idea that projects lead to certain outcomes, guided by 'projections' of desired products or future states [24,25]. To some extent, project tasks are non-routine which makes projects different

from permanent and routine forms of organizing [14]. However, project tasks often contain routine elements – familiar 'projections' – which allow for 'economies of repetition' and the development of project capabilities [5]. Yet, not least because projects also contain non-routine elements which can be hardly defined at the beginning, project tasks and their implementation typically remain subject of powerful (re-) negotiation processes among project stakeholders [26].

While tasks guide project activities in terms of what is to be done, *times* inform about how fast, in which order and until when project tasks are to be accomplished [17]. Similar to the task dimension, the time dimension refers both to the time constraint of the whole project and to consecutive deadlines during the project. That is, projects themselves are characterized by their institutionalized endings [27,p.4,17]; during implementation, deadlines are important temporal structuring devices [28,29]. Times are also related to milestones which mark those situations in which certain tasks are accomplished that are critical for a project to proceed. Finally, like tasks, times are often renegotiated as a project is under way, whereby speed, cost and quality of the outcome are traditionally traded off against each other as criteria for project success.

The third constituting element of projects discussed here are *teams* [17,10]. Like tasks and times, teams may refer to the whole project team or to sub-teams, e.g. directors and cutters in film projects. Project teams are not just constituted by individuals working together temporarily [16], but by positions those actors take [30] and relational practices they engage in from their positions with others during the project. Like tasks and times, team relations can be more or less familiar to those participating in projects which both facilitates and constrains project organizing. Team relations are governed by mechanisms of trust and control, related to the tasks at hand [31,32]. To some extent, however, project teams are also 'negotiated

orders' [33], in so far as role expectations and interaction patterns are context-bound and need to be readjusted within projects [30].

Importantly, from a structuration perspective, task specifications, time constraints and team relations are structural properties that *jointly* characterize projects as temporary systems. That is, in professional project businesses typically certain project tasks are associated with a a certain time it takes to accomplish these tasks as well as with certain team roles and relations that reflect task requirements, e.g. the task of building a small house or of producing a particular kind of film. Although every project is to some extent unique, its task, time and team features can be categorized as properties of certain types of projects a particular project belongs to. In other words, as projects are being initiated and implemented, task, time and team features are jointly enacted and reproduced as structural properties of these types of projects. This very dynamic is illustrated in Figure 1.

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The very idea that there *are* structural dimensions that jointly guide project activities raises the question of where these structures actually 'come from'. Certainly, to some extent, task, time and team conditions are always 'negotiated' within particular projects [30]. Yet, only rarely are projects 'one-off' experiences [31]. In particular in professional project businesses, projects always have a history and potential future, and happen within organizational contexts [3]. That is, they are embedded in other, often permanent, yet changing systemic environments.

In ST, system constitution and embedding are closely related phenomena. This is because particular systems are understood as integrated in broader systemic contexts. ST distinguishes between systems of different range or abstraction, reaching from dyadic

interaction systems as the smallest possible to whole societies as the largest [18], whereby these systems are interlinked through their structural properties. This means that rules and resources applied in one particular systemic context, e.g. a project, refer to practices, e.g. of organizing projects, that are embedded in wider contexts, e.g. organizations. These contexts, e.g. organizations, are themselves embedded, e.g. in interorganizational networks and organizational fields (see below). As a consequence, interaction is enabled and constrained by rules and resources reproduced on different, interrelated systemic levels or better to say: on different levels of abstraction or generalization.

Embedding projects in those multiple contexts is an ongoing process, involving the *dis*embedding of task, time and team features from previous and the *re*embedding of these features into present contexts of project organizing [34]. As actors constitute projects with particular task, time and team features, they refer to established rules and resources of project organizing in multiple contexts. In effect, these rules and resources become 'part' of the very structural properties that guide project activities in their respective contexts. In the following, organizations, networks and fields are introduced and related as particularly important contexts of project organizing. The main concern is how the very structural properties of these contexts relate to task, time and team features of particular projects, and how these contexts themselves become interrelated as projects get organized.

EMBEDDING PROJECTS IN ORGANIZATIONS, NETWORKS, AND FIELDS

In professional project businesses, projects take place in multiple systemic contexts simultaneously [3,1]. This not only requires looking at how projects get embedded in these contexts, but at how these contexts themselves relate in terms of how they condition project organizing. Based on the project literature, three major contexts can be identified (see Figure 2): organizations, interorganizational networks, and organizational fields. Organizations are

collective actors who engage in and coordinate project activities; interorganizational networks are sets of longer-term relationships between legally independent organizations which repeatedly collaborate in projects; organizational fields are areas of institutional life constituted by organizations and their members [35] who, in this context, engage in project activities.

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From a structuration perspective, all these contexts relate to projects as they facilitate and constrain project organizing. However, these contexts only condition project organizing in so far as social actors practically refer to them as structural conditions of action. In the following, these contexts and the way they are enacted and reproduced as 'project organizing contexts' will be looked at in more detail. Examples are taken mainly from the film industry in which all three contexts are equally relevant.

Organizations

The main focus of the project literature has been on the parent organization. Parent organizations are characterized by certain authority structures, longer-term strategies, cultures and technologies that affect the ways in which projects are organized [4,36,37]. In other words, organizations feature certain structural properties their members refer to when engaging in organizational activities, including the initiation and implementation of projects. While various organizational features *have* great impact on project constitution and organization, there is still a lack of understanding of *how* these features relate to project organizing activities [3]. From a structuration perspective, organizations 'provide' rules and

resources that enable and constrain project organizing. These rules and resources in turn are 'elements' of structural properties of particular projects.

To understand this systemic link, a closer look needs to be taken at the constitution of project task, time and team structures within organizations. With regard to *tasks*, for example, one important aspect of project organizing is legitimizing projects in line with organizational goals and strategies, to mobilize resources and to commit organizational members to project objectives [38,39]. That is, when defining project tasks organizational members would reflect organizational priorities and agendas. With regard to *times*, temporal structures of projects and parent organizations are interlinked [28]. Project deadlines, for example, are orchestrated with budgeting rhythms and strategic priorities so that resource allocation conflicts can be reduced [29]. Also, organizations may open (and close) windows of opportunity [40] for organizing particular kinds of projects, e.g. strategic change projects. Finally, members of project *teams* refer to organizational structures and cultures as sets of rules and resources. For example, in matrix organizations the allocation of team members is based on project and functional priorities established within the organization, which, of course, can be subject of negotiation processes [4,39]. As another example, when encountering project crises, teams also refer to organizational rules. In some organizations crafting bottom-up solutions is much more legitimate than in organizations relying more on top-down direction.

Over time, organizations develop project organizing practices and capabilities that reflect and to some extent co-evolve with structural properties of organizations. These practices and capabilities involve patterns of categorizing projects according to their task, time and team dimensions to facilitate the implementation of such projects within organizational contexts. For example, in the film industry producers categorize and label projects with regard to similarities and differences to project traditions [41,9]. In particular, they signify projects in terms of the format and genre of the film to be produced. The

categorization of a project as say a love story film implies that certain producers within a company would promote such project ideas and recruit certain teams to further develop and implement those ideas within particular time constraints. Importantly, the operation of such 'project routines' is constrained by the very nature of projects as partly unique enterprises. Therefore organizational members need to 'disembed' project routines from previous similar contexts, e.g. love story projects, and 'reembed' – that is apply and adapt – them to the present context [34,42], that is a *particular* film based on a love story. This involves reproducing, but also deviating from familiar task specifications, time constraints and team relations.

However, in order to understand how project objectives and tasks are defined, how deadlines are set and how teams are assembled it is not sufficient to just look at the organizational context. Professional project businesses, such as construction, film, and consulting, are characterized by 'flexible specialization' [43,6]. This means that professional projects typically involve customers, but also external creative and technical service providers. They are organized in longer-term networks which demarcate another important project organizing context.

Interorganizational Networks

The importance of interorganizational relationships and networks for project organizing has been recognized only in recent years. One strand of research focuses on managerial challenges of interorganizational relations *within* projects, e.g. the problem of dispersed authority, multiple commitments, information and power asymmetries between project partners [44,26,6,45]. Others direct attention to longer-term interorganizational relationships and networks, focusing on the discontinuity of project-based relationships and resulting managerial challenges [7,46,47,8]. Only few scholars, however, have actually looked at how

longer-term interorganizational networks *relate* to temporary interorganizational projects. Most elaborate attempts in this direction have been made by those studying project-based networks in the construction, film and advertising industry [48,49,10,11,9].

To understand how interorganizational networks shape project organizing practices, again, structural features or 'properties' of those networks must be identified which denote particular sets of rules and resources network members refer to [15]. Unlike (hierarchical) organizations, networks typically lack a central authority [50], often have blurring boundaries, and seem to require 'social' mechanisms, such as trust and reciprocity, to operate effectively [51,52]. Yet, what makes networks interesting as a systemic context for project organizing is not only their structural properties as organizational forms but the fact that networks consist of organizations which engage in project organizing. In other words, explaining how projects are embedded in networks also requires an understanding of how organizations are embedded in networks and how this affects organizational project practices.

Within interorganizational networks, organizations take certain positions in relation to other organizations, e.g. joint venture partner, customer or service provider. In projects, those organizations take certain roles and apply certain practices that correspond to their position in interorganizational networks. For example, TV production companies operate as network agents for TV channels. The very practices production companies apply to structure project tasks, times and teams reflect their very positional role and power within TV project networks [9,53]. The *task* dimension of projects for example reflects demands of TV channels for films of a certain genre and format. The selection of films by production companies also reflects their ambition to build up trust and interdependency with customers. Production *times* set by the TV production company are constrained by budgeting rhythms of the TV channel as well as the screening time envisaged by the client. *Team* composition reflects demands of the channel for certain script writers, directors or film actors. However, it

also relates to the availability of these service providers. Yet, network settings never determine project organizing practices, but only 'provide' certain rules and resources network partners refer to – powerfully and creatively – when organizing or getting engaged in projects. After all, only through collaborative agency, networks are enacted and reproduced as conditioning structures for project organizing.

Over time, network participants develop collaborative project capabilities [9] which facilitate and constrain organizing projects with particular task, time and team features. Thereby, organizational and interorganizational conditions for project organizing are reproduced in *conjunction* which means that they can hardly be identified 'isolated' from each other. For example, practices of assembling teams for projects are both *organizational* insofar as organizations develop certain team-building routines, but they are also *interorganizational* as participating organizations (learn to) coordinate themselves with other organizations in team-building processes. However, to complete the picture, project embedding can only be fully understood when the *organizational field* in which organizations (co-)operate and coordinate projects is also accounted for as a systemic context.

Organizational Fields

Both organizations and interorganizational networks are embedded in organizational fields [35] that condition practices of organizing in general and project organizing in particular. Fields are composed not only of customers, competitors and suppliers, but also of supporting institutions, such as colleges, regulating and funding bodies [54]. For example, the trend towards professionalization of project management has been related in the project literature to training and certifying activities of an important field institution – the Project Management Institute [55,37]. In the media industry, 'innovative milieus' and regional institutions have also been identified as important resources for project organizing [56,10,11].

Like organizations and networks, fields feature certain structural properties which project participants refer to when engaging in project organizing. For example, fields bring about certain professional norms and practices that facilitate solving crisis situations, but also help develop 'swift trust' [31] when forming teams within and across organizations. In addition, fields are often characterized by a certain degree of segmentation which can be spatial [11] or institutional [57,58]. This means that within fields sub-fields emerge whose participants engage in practices that differ quite substantially from those in other segments. In the German TV industry, for example, there is an important institutional difference between the private and the public world of television, which concerns demands of viewers, tastes of creative artists and the overall perception of product quality [49]. Production companies operating in this field usually get associated with either public or private TV. They build up their project networks with customers and service providers accordingly, though they also try to diversify [9].

Looking at how projects get embedded within fields therefore means looking at where project coordinating organizations are positioned in the field and how they relate in this respect to other project partners. However, the field also conditions project organizing in more general as it brings about certain common types of projects and practices of project organizing which all its participants refer to. Again, task, time and team dimensions of project organizing need to be seen in conjunction here. Imagine for example a TV production company taking on the *task* of producing an action film. The genre of action films is quite established within the field of film production which implies that field participants – including funding organizations – would associate a certain *team* composition, *time* frame and budget needed to produce such a film. Production times, however, would be also influenced by relevant field events, such as film festivals which are an important forum for

presenting new products [59]. Production companies and their clients know about these events and structure their project priorities accordingly.

To some extent, therefore, organizations, interorganizational networks and fields are 'aligned' as systemic contexts for project organizing. That is, certain practices, perceptions of tasks, time frames and team structures diffuse and are adopted across organizational and network and to some extent even field boundaries. However, each systemic context also develops its own boundary-setting rules, norms and agendas that partly match, partly contradict structures of other contexts. Not least because of that, embedding projects in multiple systemic contexts remains an ongoing, resourceful process that involves negotiation and powerful legitimizing and authorizing activities.

CONCLUSION AND IMPLICATIONS FOR FUTURE RESEARCH

This paper has examined from a structuration perspective how projects are constituted and embedded in multiple systemic contexts. Two theoretical propositions have been made: First, projects as temporary systems are characterized by certain structural properties, in particular task specifications, time constraints and team relations, that guide project activities. These properties are jointly enacted and reproduced as sets of rules and resources as projects are initiated and implemented. The systemic nature of projects is reflected by the interrelatedness of these structural properties. That is, certain task specifications are associated with certain time constraints and team structures. Second, projects in professional project businesses typically get embedded in multiple systemic contexts simultaneously: organizations, interorganizational networks and organizational fields. Getting embedded means that the very structural properties projects characterize are linked to structural properties of the systemic contexts in which they take place. In other words, task, time and team features of particular projects need to be recognized, authorized and legitimized according to rules and resources of

their respective systemic contexts. Importantly, the very structural conditions of any one context, e.g. organization, are shaped by the conditions of larger contexts, e.g. inter-organizational networks and organizational fields. This and the fact that every project is to some extent unique makes embedding an ongoing process project partners and stakeholders engage in more or less knowledgeably and powerfully.

These theoretical propositions have important implications for project management research. In general, they suggest a strong link between project constitution and embedding. Paradoxically, it is the embeddedness of projects in multiple contexts that sets the ground for their often idiosyncratic nature. This is because participating actors refer to familiar types of task specifications, time constraints and team structures when encountering and dealing with apparently unique project situations. Even if project partners do not belong to the same organization, their experience of projects in longer-term networks and organizational fields may guide their project activities. More specifically, a structuration perspective on project constitution and embedding may shed light on the puzzling relation between innovation and routine in project business [42]. It can be argued that the initiation and implementation of innovative projects, i.e. of projects with certain novel task, time or team features, is always grounded in the creative application of established project routines. Thereby project partners disembed routines of organizing certain types of projects with particular interrelated properties from previous collaborative contexts and reembed them in the new context which may lead to 'innovative outcomes', more or less intentionally. This is because routines are never 'replicated' but certain discretion is involved in applying them in new situations. Yet, they *do* guide action to a certain extent and hence make innovation possible.

The idea of framing project constitution and embedding as a process of structuration and systemic integration may stimulate further empirical research and conceptual work on project organizing. However, there are some notable limitations. The propositions made in

this paper primarily refer to professional project businesses, e.g. the construction and film industry, which are typically characterized by established norms and practices of project organizing. By contrast, a great number of multi-stakeholder projects cannot easily be 'embedded' in any given context nor can project participants always refer to past experiences when assigning tasks, structuring times and assembling teams. The 'embeddedness' of those projects might be the result of institutional entrepreneurship and path-dependent processes that bring about the very contexts in which project activities get embedded. Also, the proposition that task, time and team features of projects are necessarily systemically interrelated can be questioned. More empirical research is needed to understand how and to what extent actors actually relate these properties. Also, one might argue that other properties, such as project organizing tools, are equally important as structuring features of project organizing in particular contexts. Finally, how projects disconnect from and reconnect with their systemic environments needs further research. Whether embedding is actually an ongoing process or a process that takes place only in certain critical time periods is a vital question that needs to be addressed in the future.

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TABLES AND FIGURES

Figure 1: Constitution of projects as temporary systems

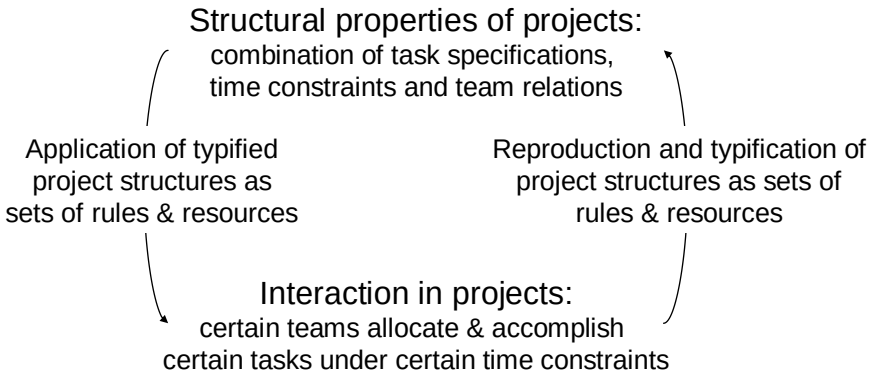

Figure 2: Embedding projects in multiple systemic contexts